Technical Assistance Services For Communities

U.S. Coast Guard ISC Kodiak, Kodiak, Alaska
Community Fact Sheet #1

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Areas of Environmental Concern on U.S. Coast Guard ISC Kodiak and Available Information for Inner Womens Bay

This fact sheet is provided by the U.S. Environmental Protection Agency's (EPA's) Technical Assistance Services for Communities (TASC) program, which is implemented by independent technical and environmental consultants. It is a resource for communities living near the U.S. Coast Guard Integrated Support Command (ISC) Base Kodiak, the Buskin River and inner Womens Bay. This fact sheet provides information on three contaminated areas on the Kodiak ISC Base: Former Navy Landfill, Fire Training Pit and Building A-711. These and other sites are being studied and cleaned up by the U.S. Army Corps of Engineers, U.S. Coast Guard, EPA and Alaska Department of Environmental Conservation. This fact sheet explains what is known about contamination at each of the three sites and potential issues of environmental concern. This fact sheet also explains what data is available for inner Womens Bay.

Former Navy Landfill

Facts:

- The former Navy landfill took in solid waste beginning in the early 1940s until 1972 when it was closed, covered with soil, and leveled. It is now covered in vegetation and fenced. Red Lake is next to the former Navy landfill and a man-made drainage ditch connects Red Lake to the Buskin River.
- EPA and the U.S. Coast Guard studied the water in Red Lake, Buskin River and the drainage ditch to see if water from the landfill is reaching the river and if chemical levels in the water should be a concern.

Areas of Environmental Concern:

- The studies showed little to no potential for harm to salmon, including spawning and rearing areas.

Fire Training Pit

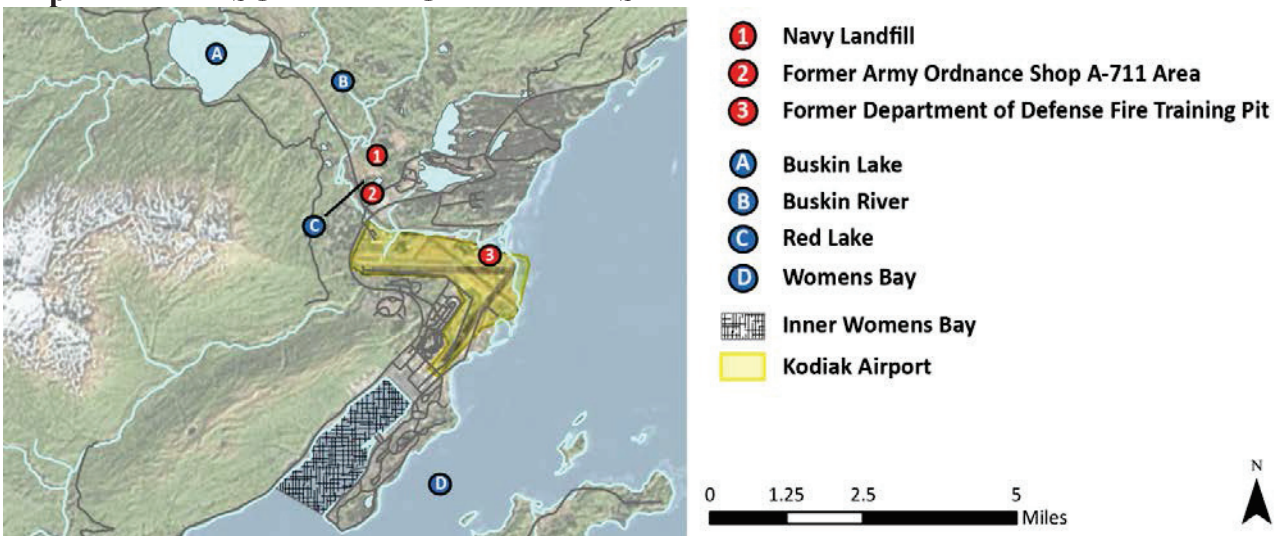
Facts:

- The Fire Training Pit site is located at the Kodiak Airport and was used by military fire fighters as a practice area. From 1951 to 1979, a variety of flammable liquids, such as gasoline, diesel and a chemical called 'PCE,' were used and spilled on the ground.
- The spilled liquids collected in underground soil and groundwater. A large amount of contaminated soil was removed from the area in 2001.

Areas of Environmental Concern:

- Chemicals in underground soil and groundwater are moving slowly and do not seem to be moving into the Buskin River at this time. It is not possible to rule out

Map of Kodiak ISC Area and Contaminated Sites



that chemicals migrated into the river in the past.

- There are some chemicals in the river sediment (the solid particles that settle to the river bottom). The source of these chemicals is not clear. It is possible that the chemicals are from the Fire Training Pit but there may be other unknown sources as well.
- Petroleum-related chemicals were found in the Buskin River nearby and upstream of the Fire Training Pit at levels that may harm spawning salmon. There is not enough information available to fully understand the risk to fish and other wildlife at this time.

Building A-711

Facts:

- Building A-711 was once an ammunition and ordnance shop for the Army and was later used as an auto shop by the Navy. It is now a maintenance building leased to Alaska Department of Transportation and Public Facilities by the U.S. Coast Guard.
- In the past, gasoline, diesel fuel, oils, solvents and paints spilled and leaked into the soil. The chemicals collected in soil and groundwater under and around the building. In 1999, over 8,000 tons of contaminated soil and 2,300 gallons of petroleum-related products were removed from the area. Removing these did not reduce levels of chemicals measured in groundwater.
- A plume of petroleum-related chemicals is moving underground through the soil in a south, southeast direction along side the river. Groundwater wells around the site are used to monitor contamination and movement of the chemicals.

Areas of Environmental Concern:

- There is currently no evidence that the groundwater contaminates the river, but EPA and the U.S. Army Corps of Engineers continue to monitor groundwater near the river.
- Even though petroleum-related chemicals were found in the river near Building A-711, the source of the chemicals is not known. These chemicals may be from Building A-711 but may also be from unknown sources.
- Some sediment samples from the Buskin River near Building A-711 had petroleum-related chemicals at levels that may harm spawning salmon. There is not enough data available to fully understand the risk to fish and other wildlife at this time.

Womens Bay

Facts:

- The Kodiak ISC Base borders Womens Bay. The inner part of Womens Bay extends from the mainland near the Air Station to Nyman Peninsula.
- There is little information about oil and chemical spills from the Base to inner Womens Bay before 1972. There is some evidence that fuel spills into the bay occurred before this time, including spills from the power plant during the 1964 earthquake.
- Sediment samples collected from inner Womens Bay show that the head of the bay has the highest levels of petroleum-related chemicals. This means that the chemicals probably came from spills from the Air Stations and other areas of the Base.

Areas of Environmental Concern:

- The last sediment study (1999) showed that chemicals in sediment are not likely to harm marine organisms.
- EPA ordered more sediment sampling in inner Womens Bay during the summer of 2012 to be sure that marine organisms are not at risk. The results of this study are not yet available.

Need For More Information

The information reviewed for this fact sheet is specific to three contaminated Base areas and Womens Bay. More study is needed to understand what other sources might be contaminating the Buskin River, inner Womens Bay, and the areas around them. More study could also include the effects the contamination might have on wildlife and people who consume wildlife from this area.

FOR MORE INFORMATION, PLEASE CONTACT:
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U.S. Coast Guard ISC Kodiak, Kodiak, Alaska Community Fact Sheet #2

U.S. Coast Guard ISC Kodiak: Effects on Tribal Subsistence Activities

This fact sheet is provided by the U.S. Environmental Protection Agency's (EPA's) Technical Assistance Services for Communities (TASC) program, which is implemented by independent technical and environmental consultants. It is a resource for communities living near the U.S. Coast Guard Integrated Support Command (ISC) Base Kodiak, the Buskin River and inner Womens Bay. This fact sheet provides information about effects of contamination from the Base on wildlife, especially fish, on the Buskin River and inner Womens Bay. The contaminated sites on the Base covered in this fact sheet are: Former Navy Landfill, Fire Training Pit and Building A-711 (see Fact Sheet #1).

Wildlife and the Buskin River

At this time, no studies of contamination effects on wildlife or people who use the Buskin River and nearby wild areas have been done. More information about this area is needed. For the specific sites explained in Fact Sheet 1, the following is known:

- Fencing on the three contaminated sites limits some animal traffic though birds can still fly in and out.
- The sites are fenced industrial properties where wildlife protection is not an option.
- Because the sites are intended for industrial use and the contamination is found deeper than 12 feet below the surface, studies of how contamination might affect wildlife have not been done.

Eating Fish and Wildlife from the Buskin River and Inner Womens Bay

Even though petroleum-related chemicals are found in the Buskin River and inner Womens Bay, it is not clear if the chemicals pose a threat to wildlife or to people who eat wildlife.

More information is needed to better understand the impacts of the chemicals. Areas for further study would be in areas where these chemicals are found in relation to sensitive areas of the river.

The Sun'aq Tribe and Alaska Natives on Kodiak can help by taking part in discussions about future studies in and near the Buskin River and inner Womens Bay. This also means staying informed and commenting on on-going studies, such as the 2012 sampling of inner Womens Bay. Requesting and attending public meetings and sharing Tribal concerns with site owners and government agencies can also help Alaska Natives on Kodiak be a part of this process.

Fish Species and the Buskin River

Three salmon species, Dolly Varden char and steelhead trout live in the Buskin River and Buskin Lake system:

Pink salmon are the largest run (60,000-300,000 annually). They are unique because after hatching, fry are present only long enough to swim downstream out of the river (about two weeks). Spawning takes place in early spring in Buskin Lake and River. Eggs may be vulnerable to contamination in the river but fry are relatively low risk because they spend less than two weeks in the river.

Sockeye salmon are the second largest run (10,000-20,000 annually) with spawning and juvenile rearing in Buskin Lake for up to one year. Sockeye are the least vulnerable to river contamination because they spawn and live within the lake and use the river for migration only.

Silver salmon are the smallest run (6,000-9,000 annually) with spawning in Buskin Lake and rearing throughout the river and lake for up to one year. Silver may be the most vulnerable to river contamination because spawning and rearing take place in the river.

Dolly Varden char and **trout** spend the winter in Buskin Lake and use the river for migration only. Other fish that live in the river include **stickleback** and **sculpin**.

The U.S. Coast Guard studied the metals in the Buskin River, Red Lake and drainage ditch sediment (solid particles that settle to the bottom) near the former Navy landfill. They found:

- Iron and arsenic in sediment in the Buskin River may harm small aquatic insects like water fleas, mayflies, caddis flies and stoneflies. The bugs are an important food source for salmon, but salmon do not spawn in this area.
- The amount of arsenic in sediment in this area is similar to levels in other sediments further away from the Base.
- There was likely little to no impact on aquatic insects and salmon in shallow, fast moving areas of the river where spawning might take place.
- Possible harm to aquatic insects was more likely in the drainage ditch and Red Lake but these areas are not salmon spawning and rearing areas.
- No studies have been done to look at whether petroleum-related chemicals in the Buskin River might harm fish and other organisms near Building A-711 or the Fire Training Pit.

Wildlife and Inner Womens Bay

- The U.S. Coast Guard studied the toxicity of chemicals in some sediment samples collected from inner Womens Bay in 1999. The results indicated that there was no harm to small creatures living in the sediment that are a food source for other marine wildlife.
- Since then, EPA has ordered the collection of additional sediment samples to gain a better understanding of chemicals in the bay and the potential harm to wildlife. The results of this recent study are not yet available.
- More information about this area is needed in order to fully understand contamination in this area and any effects it might have on wildlife and those who eat it.

Interested in learning more?

Please come to a meeting
Monday, September 10, 2012
7 p.m.
Sun'aq Tribal Center
312 West Marine Way
Kodiak, Alaska 99615

TASC Consultants will be available to review the information in these fact sheets and answer questions.

Need For More Information

The information reviewed for these fact sheets was limited to the Former Navy Landfill, Fire Training Pit, Building A-711 and inner Womens Bay. More study is needed to understand how the areas around these sites are affected. Future studies could include:

- Thoroughly looking at chemicals in the river, from Buskin Lake to St. Paul Harbor, to understand what type of chemicals are present and their levels.
- Looking into all possible sources of chemicals that are found in the river. This could include studying other sites on the Kodiak ISC Base, runoff from roads in the area, and other possible sources of petroleum-related chemicals.
- Surveying wildlife and people who use the Buskin River and nearby wild areas to understand what wildlife are present in the area and how they are being consumed.

It is not possible understand the potential risk or impacts of chemicals in the river without having more information on the type of chemicals present, and knowing more about the wildlife and people using the area.

More study is needed to fully answer questions about the health of the Buskin River, surrounding areas, and the people using the river. Studies should include other areas not covered in this fact sheet that are known or thought to contaminate the Buskin River.

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